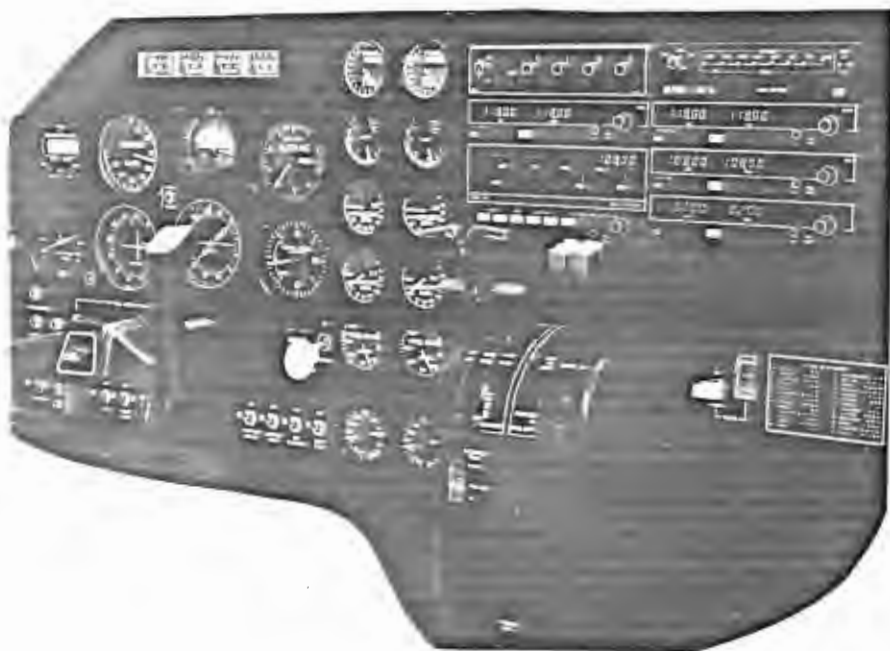


AST 300 T TURBOPROP
DATA SHEET



The AST 300 T Turboprop Training Device is designed to be a highly effective and economical instrument and procedures trainer for various turboprop aircraft. It accurately models the flight and engine performance characteristics of a generic or type specific aircraft, and contains provisions for systems integration on a modular basis, using "Selective Fidelity" to simulate only as much as is necessary for the specific training application.

In its standard configuration, the 300 T utilizes the basic radio stack and electronics of all AST simulators, providing a commonality of parts and service support. A larger flight instrument panel is incorporated, offering added flexibility for instrument layout and incorporation of flight directors or larger (4 inch) attitude displays. A separate, interchangeable engine instrument group contains a double row of engine gauges which may be changed by the operator to reflect different engine and/or airplane characteristics.

The flight and engine modeling permit the AST 300 T to accurately match the performance characteristics of various aircraft, so that training "to the numbers" may be accomplished. Flight modeling includes:

- Stall speeds, all configurations.
- VMCA, all configurations
- Cruise tables of pitch, power, airspeed relationships at various altitudes and OATs
- Pitch and drag effects of landing gear
- Pitch, lift and drag effect of flaps
- Pitch, power, airspeed relationship at various bank angles and configurations
- Engine-out characteristics, including climb rates at various airspeeds and configurations
- Asymmetric thrust, yaw, and feathering effects

Engine modeling includes:

- Engine RPM, propeller RPM, torque, temperature and fuel flow relationships at various altitudes and OAT's
- Spool-up times, temperature profiles and power output power characteristics
- Cruise range, flight idle, ground idle and reverse thrust characteristics
- Starting and shutdown procedures and abnormalities

Systems and options which may be added, but are not included in the standard simulator:

- Interchangeable engine/flight models
- AC and DC electrical
- Hydraulic
- Bleed air/pneumatic
- Anti-ice/de-ice
- Pressurization
- Fire detection/supression
- Annunciators
- HSI/RMI/Radar Altimeter
- Flight Director/Autopilot
- Dual controls
- Control loading